

Collaboration of language Section with Subject-specific Departments in STU MTF

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Abstract

The current paper puts forward several ideas of how to implement a fruitful two-way collaboration system of Language Section with the subject-specific departments of the STU MTF (Slovak University of Technology, Faculty of Materials Science and Technology) to enhanced teaching/learning process and to justify the role, enhance its prestige and strengthen the position of the Language Section in the environment of an engineering faculty.

Keywords:

Collaboration
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English for Science and Technology
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Projects

1 Introduction

These days, there is a huge demand for the technology experts able to share, disseminate and enhance their knowledge and skills in related areas via well-developed English language competence. One of the ways of ensuring efficient training for the current university students/future experts in the field of technology and to prepare them for successful performance in the international research, industry and business sectors is a well-established collaboration of language sections (LS) with subject-specific departments (SSDs) in engineering universities.

Competence of an EST (English for Science and Technology) teacher is based on four pillars: solid English language knowledge, adequate knowledge of the university subject areas, and awareness of specific needs of stakeholders (university, students, government, parents etc.) as well as experience with cultural issues of the current international and multicultural environment. Based on the long-year continuous experience of the STU MTF (Slovak University of Technology, Faculty of Materials Science and Technology) Language Section, the current paper puts forward several ideas of how to implement a meaningful and fruitful two-way collaboration system with the specific-subjects departments. Efficient co-operation does not necessarily involve long regular meetings on the highly specific issues beyond the comprehension of language teachers. This paper illustrates several simple, efficient and motivating strategies of encouraging and intensifying contacts with subject-specific teachers, which have proved to be beneficial to all the parties involved, students in particular. The collaboration has frequently yielded a useful output of various nature (syllabus design, mutual products e.g. textbooks, involvement in research projects, student assignments, papers of doctoral students/researchers, improved conferencing or negotiation skills, developed cultural awareness), thus enhancing teaching/learning of both EST course and specific subjects.

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2 EST concept based on the on-going needs analysis

The STU MTF EST concept was developed in the early 90s of the previous century, based on the identification of the Faculty students' needs, wants and lacks in the field of English language knowledge and skills on the one hand, and the demands and requirements of the Faculty and entrepreneurs/employers from the industrial practice on the other hand. The elaborated EST concept is regularly updated based on the ongoing discussions with and feedback from interested parties regarding the current development, innovations and prospects in the field of research, development and practice. In this way, language teaching goes hand in hand with subject-specific teaching.

Language is a socio-cultural phenomenon, so focus on culture and ethic is an integral part of the EST course. The STU students participate in mobility in foreign universities, where sensitivity towards culture differences, tolerance and adaptability are prerequisites for mastering the university study in the new international environment, and later for performance in the institutions and companies with different corporate cultures. Soft skills such as self-motivation, time management and learner autonomy, flexibility, willingness to learn, self-organisation developed in the EST classes along with the language skills increase the chances of the Faculty graduates on the global job market.

3 Getting into the picture

Competence of an EST teachers covers the adequate knowledge of the related engineering field. It is irrational to expect an EST teacher having expertise in the variety of study programmes taught at the Faculty and covering the fields ranging from materials, technology of machining, welding, casting, processing and assembly through to industrial management, occupational safety, environmental issues, and computer applications. Anyway, they must be prepared to get familiar with the selected basic and specific issues so that to be able to ask intelligent questions and enter (semi-)professional discussion when presenting the topics to students or representing the Faculty in social and professional events. We have managed to achieve this via:

3.1 Getting familiar with the Faculty premise

To get insight into the issues related to the programmes studied at the Faculty, our colleagues of the SSDs showed us round the Faculty laboratories, demonstrated the related equipment, basic operations and samples of materials or products, and explained technology procedures. Visits to e.g. Excellence Centre of 5-axis Machining or Laboratory of Materials Research filled us with deep respect for the options provided by advanced technology, and for our colleagues' commitment and skills. Impressed by the demonstration and instructions, we can refer to real facts in teaching EST.

3.2 Inviting subject teachers to EST events

Staff of the Language Section often has to justify their role and existence in the engineering university. We had to learn how to articulate our EST vision and mission to the faculty authorities and staff. Yet, the invitations of our colleagues to the events such as Student Research Conference, UNiCert examinations or just showing them round the Language Section premises decorated by student output (posters) have proved to be much more effective. Seeing is believing. Insight of the SSDs teachers into our work helped us win their respect.

3.3 Specific assignments in collaboration with SSD

Along with classical exercises from conventional textbooks, we assign students with specific tasks agreed and discussed with SSD teachers, and tailored to the needs of the MTF students. Besides focusing on the contents, formatting instructions and template (of e.g. abstracts, papers, reports) we also pay attention to the issues related to the features such as specific vocabulary and structures typical for technical texts, clear layout,

style/register plus elements of corporate culture, awareness of the recipient, that can add value that and upgrade a document, making it clear in expressing the message, neat and reader-friendly.

3.4 Involving doctoral students of SSDs into teaching EST

With consent of supervisor, PhD. Students of SSDs are sporadically involved in peer teaching in the EST course, particularly if the latest innovations are concerned. Besides demonstrating their expertise, they adopt our teaching style, methods and approaches, we make them think of the students' needs and their learning styles, consider multi-sensory perception, rules of effective communication, lesson structure, objectives and purpose of tasks and assignments. Application of learner-centred approach and principles of student autonomy makes our teacher trainees shift their concept of teaching from ritual performance towards teaching awareness.

4 Common output

The output developed in the collaboration of the subject-specific departments' teachers with the EST teachers comprises:

- University textbooks (e.g.: Marônek, M. - Mironovová, E.: Diplomový projekt Práca s odbornou anglickou terminológiou v oblasti zvarovania (Diploma project. Work with the English terminology in the field of welding).
- Assistance with translations (e.g. university textbook "Theory of Forming" (in press) by Assoc. Professors Roman Moravčík PhD. and Marián Hazlinger CSc.).
- Translations of more than 30 scientific monographs translated by the EST teachers of the Language Section.

Currently, the EST teachers of the Language Section are involved in the following projects of the SSDs teachers:

- VEGA project 1/0470/14 Využitie moderných metód optického 3D skenovania na analýzu deformácií zvarkov (Using modern methods of optical 3D scanning for analysis of the welds deformation), principal investigator: Prof. Ing. Milan Marônek CSc. of the Institute of Technology, Department of Welding and Foundry.
- KEGA project 006STU-4/2015 University textbook "Means of automated production" written in an interactive multimedia form for STU Bratislava and technical University of Košice; principal investigator: Assoc. Prof. Ing. Pavol Božek, CSc.
- VEGA project 1/0367/15 Výskum a vývoj nového systému autonómnej kontroly trajektórie robota (Research and development of a new system of autonomous control of a robot trajectory), principal investigator: Assoc. Prof. Ing. Pavol Božek, CSc.

Simultaneously, the SSD teachers are involved in the projects submitted and elaborated by the Language Section teachers:

- APVV project: SK-SRB-2013-0034, Student on-line conferences between STU MTF (Slovakia) and FEE, University in Nis (Serbia); Principal investigator: Mgr. Gabriela Chmelíková, PhD., involved three EST teachers, three PhD students and two young researchers of the Institute of Applied informatics and Mechatronics.
- Erasmus+ project: 2015-1-SK01-KA201-008937 Transnational Exchange of good CLIL practice among European Educational Institutions, with five educational institutions from European countries involved (Slovakia, Lithuania, Latvia, Sweden and Spain), responsible representative for STU MTF: Mgr. Ľudmila Hurajová, PhD. + selected experts from SSD.
- KEGA project 033stu-4-2016 (submitted) Tvorba edukačnej aplikácie pre študentov STU MTF na zvýšenie úrovne odborného anglického jazyka v rámci riadeného samoštúdia so zameraním sa na študijný odbor Aplikovaná informatika a automatizácia v priemysle (Development of education application for the STU MTF students with the aim to increase the EST training within self-access study in the study programme of Applied Informatics and automation in industry). Principal investigators: Mgr. Ludmila Hurajová, PhD./Mgr. Gabriela Chmelíková, PhD. Involved two EST teachers, two teachers

of the Institute of Applied Informatics and Mechatronics and two undergraduates majoring in applied Informatics and Automation.

5 Conclusion

The above-mentioned activities of the Language Section has proved to be more effective, impressive and persuasive than purely articulating the mission and role of LS to the Faculty authorities. It is worth to invest into informal relations and build personal contacts in order to set up effective communication with the subject-specific departments to get mutually beneficial insight into each other's work and thus enhance the education. For Language Section, it is a way of how to win respect and justify its role in an engineering university.

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